

# Global Immune Checkpoint Inhibitors Biomarkers & Clinical Trials Insight 2028

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#### **Abstracts**

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Global Immune Checkpoint Inhibitors Biomarkers & Clinical Trials Insight 2028 Report Highlights:

Global Immune Checkpoint Inhibitors Market Opportunity: > USD 30 Billion

Immune Checkpoint Inhibitors Clinical Trials Insight: CTLA-4, LAG3, PD-1/PD-L1, TIGIT Inhibitors

Immune Checkpoint Inhibitors Clinical Trials Insight: > 300 Drugs In Trials

Biomarkers Insight By Immune Checkpoint Inhibitors Classification

Insight On Biomarkers Sourced From Trials By Drugs & Indication

Biomarker Name & Function Insight By Immune Checkpoint Inhibitor Drug

Biomarker Insight Based On Drugs In Multiple Trials Phase & Multiple Indication

Cancer biomarker is traceable substances or molecules which indicate the presence of cancerous cells. The prevention of cancer by diagnosing and analyzing various cancer biomarkers using different diagnostic techniques is a profound approach to obtain rapid results for treatment. There are various types of biomarkers such as proteins, peptides, antibodies, and nucleic acids. Presence of these biomarkers in tissues, urine, serum,



blood, and other body fluids indicate an abnormal process or a disease. Various such biomarkers for cancer indications have been studied and are used as biomarkers for diagnostics, prognostics, personalized medicines, and surrogate endpoints. The identification of different types of biomarkers is an integral part of various industries such as healthcare and pharmaceuticals.

Among all targeted approaches, immune checkpoint inhibitors have gained the maximum interest in the market. To date, several immune checkpoint inhibitors have entered the market and various others are present in clinical development, thus driving this sector during the forecast period. However, these immune checkpoint inhibitors are shown to be effective in about 20%-30% of the cancer patients. Therefore, there is unmet need to develop and validate accurate biomarkers to assist immune checkpoint therapy in cancer patients.

Currently, FDA has approved three predictive biomarkers for immune checkpoint inhibitor therapy in cancer patients including programmed cell death ligand-1 (PD-L1); microsatellite instability (MSI), and tumor mutational burden (TMB). Apart from this, several others are present in clinical development. Our report provides comprehensive analysis on the ongoing clinical trials related to biomarker for approved immune checkpoint inhibitors as well as inhibitors which are under clinical trials. Furthermore, the role of biomarker in different therapeutic conditions is also mentioned in the report.

Many pharmaceutical companies are actively investing in research and development of novel biomarkers for the diagnosis and treatment of cancer. Many potential candidates are in their end stage of development and are projected to give a tremendous boost to the market after their launch. Recently in 2022, Personalis announced a strategic alliance with the Moores Cancer Center at University of California San Diego Health, a National Cancer Institute-designated Comprehensive Cancer Center, to support clinical diagnostic testing in patients with advanced solid tumors and hematological malignancies. The collaboration will bring Personalis' leading comprehensive genomic tumor profiling test to UC San Diego health care professionals and their cancer patients to help guide FDA-approved therapy decisions, as well as clinical trial treatment options.

US will continue to dominate the global market in terms of biomarker research and immune checkpoint inhibitor sales during the forecast period driven by several factors including higher adoption of advanced technologies like next generation sequencing, and the increasing number of research studies establishing the role of biomarkers in drug discovery and development, and cancer diagnosis. Additionally, rising prevalence of cancer in the region and surge in awareness among population regarding the



availability of biomarkers will also aid in the growth of market. Furthermore, rapid approval of diagnostic tests in the region will also propel the growth of the market. For instance in 2022, Oxford BioDynamics announced the US launch of its checkpoint inhibitor test (EpiSwitch CIRT) for cancer.

The global immune checkpoint inhibitor biomarkers market is expected to witness a significant growth during the forecast period due to increase in prevalence of various types of cancers such as breast, prostate, and lung cancer. In addition, surge in importance of biological and targeted drug therapies, technological advancements, accuracy, and reliability of cancer biomarkers also contribute toward the growth of the market. Moreover, increase in investments from governments and public and private sector toward research and development for cancer diagnostics have a positive impact on the market. The key players in the market include Roche, Abbott, Thermo Fisher Scientific, Centogene, Myriad, and others.



#### **Contents**

- 1. GLOBAL IMMUNE CHECKPOINT INHIBITOR MARKET OVERVIEW
- 1.1 Current Market Scenario
- 1.2 Future Market Opportunity
- 2. CTLA4 PROTEIN INHIBITORS BIOMARKERS & CLINICAL TRIALS INSIGHT BY COMPANY, INDICATION & PHASE
- 2.1 Research
- 2.2 Preclinical
- 2.3 Phase-I
- 2.4 Phase-I/II
- 2.5 Phase-II
- 2.6 Phase-III
- 2.7 Preregistration
- 3. MARKETED CTLA-4 INHIBITORS DRUGS BIOMARKERS INSIGHT
- 4. GLOBAL LAG3 INHIBITORS CLINICAL PIPELINE BY COMPANY, INDICATION & PHASE
- 4.1 Research
- 4.2 Preclinical
- 4.3 Phase-I
- 4.4 Phase-I/II
- 4.5 Phase-II
- 4.6 Phase-II/III
- 4.7 Phase-III
- 4.8 Preregistration
- 5. PD-1/PD-L1 INHIBITORS BIOMARKERS & CLINICAL TRIALS INSIGHT BY COMPANY, INDICATION & PHASE
- 5.1 Research
- 5.2 Preclinical
- 5.3 Phase-I
- 5.4 Phase-I/II



- 5.5 Phase-II
- 5.6 Phase-II/III
- 5.7 Phase-III
- 5.8 Preregistration
- 5.9 Registered

#### 6. MARKETED PD-1/PD-L1 INHIBITORS DRUGS BIOMARKERS INSIGHT

# 7. TIGIT PROTEIN INHIBITORS BIOMARKERS & CLINICAL TRIALS INSIGHT BY COMPANY, INDICATION & PHASE

- 7.1 Research
- 7.2 Preclinical
- 7.3 Phase-I
- 7.4 Phase-I/II
- 7.5 Phase-II
- 7.6 Phase-III

# 8. PD-1/PD-L1 IMMUNE CHECKPOINT INHIBITOR - AVAILABILITY, PATENT, PRICE & DOSAGE ANALYSIS

- 8.1 Pembrolizumab (Keytruda)
- 8.2 Nivolumab (Opdivo)
- 8.3 Durvalumab (Imfinzi)
- 8.4 Avelumab (Bavencio)
- 8.5 Atezolizumab (Tecentriq)
- 8.6 Cemiplimab (Libtayo)
- 8.7 Dostarlimab (Jemperli)
- 8.8 Toripalimab (Tuoyi)
- 8.9 Sintilimab (Tyvyt)
- 8.10 Camrelizumab (AiRuiKa)
- 8.11 Tislelizumab (Baize'an)
- 8.12 Envafolimab (Enweida)
- 8.13 Sugemalimab (Cejemly)
- 8.14 Zimberelimab
- 8.15 Penpulimab

## 9. CTLA-4 IMMUNE CHECKPOINT INHIBITOR - AVAILABILITY, PATENT, PRICE & DOSAGE ANALYSIS



#### 9.1 Ipilimumab (Yervoy)

#### 10. GLOBAL IMMUNE CHECKPOINT INHIBITORS SALES INSIGHTS 2028

- 10.1 Keytruda
- 10.2 Yervoy
- 10.3 Opdivo
- 10.4 Imfinzi
- 10.5 Tecentriq
- 10.6 Libtayo
- 10.7 Jemperli
- 10.8 Bavencio
- 10.9 Tyvyt

#### 11. COMPETITIVE LANDSCAPE

- 11.1 Amgen
- 11.2 AstraZeneca
- 11.3 Bristol Myers Squibb
- 11.4 F-Star Therapeutics
- 11.5 GlaxoSmithKline
- 11.6 Immutep
- 11.7 Innovent
- 11.8 Macrogenics
- 11.9 Merck
- 11.10 Nanobiotix
- 11.11 Novartis
- 11.12 Ono Pharmaceutical
- 11.13 Pfizer
- 11.14 Roche
- 11.15 Shanghai Junshi Biosciences



### **List Of Figures**

#### LIST OF FIGURES

Figure 1-1: Global – Immune Checkpoint Inhibitors Market Size (US\$ Billion), 2020 & 2021

Figure 1-2: Global – Immune Checkpoint Inhibitors Market by Region (US\$ Billion), 2021

Figure 1-3: Global – Immune Checkpoint Inhibitors Market by Region (%), 2021

Figure 1-4: Global – Immune Checkpoint Inhibitors Market by Product (US\$ Billion), 2021

Figure 1-5: Global – Immune Checkpoint Inhibitors Market by Product (%), 2021

Figure 1-6: Global – Immune Checkpoint Inhibitors Market Opportunity (US\$ Billion),

2022 - 2028

Figure 1-7: US – Immune Checkpoint Inhibitors Market Opportunity (US\$ Billion), 2022 - 2028

Figure 8-1: Keytruda – Approval Year by Region

Figure 8-2: Keytruda – FDA Approval Year by Indication

Figure 8-3: Keytruda – Patent Expiration Year by Region

Figure 8-4: US - Price for 4ml, 8ml Supply & Price Per ml of Keytruda Intravenous Injection (US\$), February'2022

Figure 8-5: UK - Price for 4ml & Price Per ml of Keytruda 100mg Intravenous Injection (GBP/US\$), February'2022

Figure 8-6: Keytruda – Duration of Single Treatment Cycle & Full Treatment of

Melanoma & Other Cancers (Weeks), February'2022

Figure 8-7: Keytruda - Cost of Single & Full Treatment using Solution of Injection (US\$), February'2022

Figure 8-8: Opdivo – Approval Year by Region

Figure 8-9: Opdivo – FDA Approval by Indication

Figure 8-10: Opdivo - Patent Expiration Year by Region

Figure 8-11: US - Price for 4ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (US\$), February'2022

Figure 8-12: US - Price for 10 ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (US\$), February'2022

Figure 8-13: US - Price for 12 ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (US\$), February'2022

Figure 8-14: US - Price for 24 ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (US\$), February'2022

Figure 8-15: UK - Price for 4 ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous



Injection (GBP/US\$), February'2022

Figure 8-16: UK - Price for 10ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (GBP/US\$), February'2022

Figure 8-17: UK - Price for 24ml Supply & Price Per ml of Opdivo 10mg/ml Intravenous Injection (GBP/US\$), February'2022

Figure 8-18: Opdivo Monotherapy Therapy - Single Treatment Cycle & Full Treatment Average Cost (US\$), February'2022

Figure 8-19: Imfinzi – FDA Approval Year by Indication

Figure 8-20: Imfinzi – Approval Year by Region

Figure 8-21: Imfinzi – FDA Approval & Patent Expiration Year

Figure 8-22: US- Price for a Supply of 2.4ml & Price Per ml of Imfinzi Solution for Injection (US\$), February'2022

Figure 8-23: US – Price for a Supply of 10 ml & Price Per ml of Imfinzi Solution for Injection (US\$), February'2022

Figure 8-24: UK- Price for a Supply of 2.4ml & Price Per ml of Imfinzi Solution for Injection (GBP/US\$), February'2022

Figure 8-25: UK- Price for a Supply of 10ml & Price Per ml of Imfinzi Solution for Injection (GBP/US\$), February'2022

Figure 8-26: Imfinzi - Average Cost of Single Treatment Cycle & Full Treatment of NSCLC (US\$), February'2022

Figure 8-27: Bavencio – FDA Approval Year by Indication

Figure 8-28: Bavencio - Price for 10ml Supply & Price Per ml of 20mg/ml Intravenous Injection (US\$), February'2022

Figure 8-29: UK- Price for a Supply of 10ml & Price Per ml of Bavencio Solution for Injection (GBP/US\$), February'2022

Figure 8-30: Bavencio - Average Cost of Single Treatment Cycle & Annual Treatment (US\$), February'2022

Figure 8-31: Tecentriq – Approval Year by Region

Figure 8-32: Tecentriq – FDA Approval Year by Indication

Figure 8-33: US- Price for 14ml Supply & Price Per ml of Tecentriq 840mg/14ml Intravenous Injection (US\$), February'2022

Figure 8-34: US - Price for 20ml Supply & Price Per ml of Tecentriq 1200mg/20ml Intravenous Injection (US\$), February'2022

Figure 8-35: UK- Price for a Supply of 20ml & Price Per ml of Tecentriq Solution for Injection (GBP/US\$), February'2022

Figure 8-36: UK- Price for a Supply of 14ml & Price Per ml of Tecentriq Solution for Injection (GBP/US\$), February'2022

Figure 8-37: Tecentriq - Average Cost of Single Treatment Cycle & Annual Treatment using 840mg/2 Week Dose (US\$), February'2022



Figure 8-38: Tecentriq - Average Cost of Single Treatment Cycle & Annual Treatment using 1200mg/3 Week Dose (US\$), February'2022

Figure 8-39: Tecentriq - Average Cost of Single Treatment Cycle & Annual Treatment using 1680mg/4 Week Dose (US\$), February'2022

Figure 8-40: Libtayo – Approval Year by Region

Figure 8-41: Libtayo – FDA Approval Year by Indication

Figure 8-42: US- Price for a Supply of 7ml & Price Per ml of Libtayo Solution for Injection (US\$), February'2022

Figure 8-43: UK- Price for a Supply of 7ml & Price Per ml of Libtayo Solution for Injection (GBP/US\$), February'2022

Figure 8-44: Libtayo – Cost of Single Treatment Cycle & Annual Treatment Cost (US\$), February'2022

Figure 8-45: US- Price for a Supply of 10ml & Price Per ml of Jemperli Solution for Injection (US\$), February'2022

Figure 8-46: UK- Price for a Supply of 10ml & Price Per ml of Jemperli Solution for Injection (GBP/US\$), February'2022

Figure 8-47: Jemperli - Average Dose of Initial 4 Cycles & Subsequent Cycles (mg)

Figure 8-48: Jemperli - Average Cost of Initial 4 Cycles & Subsequent Cycles (US\$), February'2022

Figure 8-49: Tuoyi – NMPA Approval by Indication

Figure 8-50: China– Price for a Supply of 2ml & Price Per ml of Tuoyi Solution for Injection (Yuan/US\$), February'2022

Figure 8-51: China– Price for a Supply of 2.5ml & Price Per ml of Tuoyi Solution for Injection (Yuan/US\$), February'2022

Figure 8-52: China– Price for a Supply of 6ml & Price Per ml of Tuoyi Solution for Injection (Yuan/US\$), February'2022

Figure 8-53: Tyvyt – NMPA Approval by Indication

Figure 8-54: China– Price for Vial of AiRuiKa (Yuan/US\$), February'2022

Figure 8-55: Tislelizumab – NMPA Approval by Indication

Figure 8-56: China- Price for Vial of Penpulimab (Yuan/US\$), February'2022

Figure 9-1: Yervoy – Approval Year by Region

Figure 9-2: Yervoy – FDA Approval Year by Indication

Figure 9-3: Yervoy – US & Europe Exclusivity Expiration Year

Figure 9-4: US - Price for 10ml Supply & Price Per ml of Yervoy 5mg/ml Intravenous Injection (US\$), February'2022

Figure 9-5: US – Price for 40ml Supply & Price Per ml 5mg/ml Yervoy Intravenous Injection (US\$), February'2022

Figure 9-6: UK - Price for 10ml & Price Per ml of Yervoy 50mg Intravenous Injection (GBP/US\$), February'2022



Figure 9-7: UK - Price for 40ml & Price Per ml of Yervoy 200mg Intravenous Injection (GBP/US\$), February'2022

Figure 9-8: Yervoy – Duration of Single Treatment Cycle & Full Treatment of Metastatic Melanoma & Hepatocellular Carcinoma (Weeks), February'2022

Figure 9-9: Yervoy – Average Cost of Single Treatment Cycle & Full Treatment of

Metastatic Melanoma & Hepatocellular Carcinoma (US\$), February'2022

Figure 9-10: Yervoy – Average Cost of Single Treatment Cycle, Initial Year & Remaining

Years for Management of Metastatic Melanoma (US\$), February'2022

Figure 10-1: Global - Keytruda Annual Sales Value (US\$ Billion), 2018 - 2021

Figure 10-2: Global - Keytruda Quarterly Sales Value (US\$ Billion), 2021

Figure 10-3: Global - Keytruda Quarterly Sales Value (US\$ Billion), 2020

Figure 10-4: Global - Yervoy Annual Sales Value (US\$ Million), 2018 - 2021

Figure 10-5: US - Yervoy Annual Sales Value (US\$ Million), 2018 - 2021

Figure 10-6: Yervoy - Annual Sales Value by Region (US\$ Million), 2021

Figure 10-7: Yervoy - Annual Sales Value by Region (US\$ Million), 2021

Figure 10-8: Global - Yervoy Quarterly Sales Value (US\$ Million), 2021

Figure 10-9: US - Yervoy Quarterly Sales Value (US\$ Million), 2021

Figure 10-10: Global - Yervoy Quarterly Sales Value (US\$ Million), 2020

Figure 10-11: US - Yervoy Quarterly Sales Value (US\$ Million), 2020

Figure 10-12: Global - Opdivo Annual Sales Value (US\$ Million), 2021

Figure 10-13: US - Opdivo Annual Sales Value (US\$ Million), 2021

Figure 10-14: Global - Opdivo Quarterly Sales Value (US\$ Million), 2021

Figure 10-15: US - Opdivo Quarterly Sales Value (US\$ Million), 2021

Figure 10-16: Global - Opdivo Quarterly Sales Value (US\$ Million), 2020

Figure 10-17: US - Opdivo Quarterly Sales Value (US\$ Million), 2020

Figure 10-18: Global - Imfinzi Annual Sales Value (US\$ Million), 2019 - 2021

Figure 10-19: US - Imfinzi Annual Sales Value (US\$ Million), 2019 - 2021

Figure 10-20: Europe - Imfinzi Annual Sales Value (US\$ Million), 2019 - 2021

Figure 10-21: Imfinzi - Annual Sales Value by Region (US\$ Million), 2021

Figure 10-22: Imfinzi - Annual Sales Value by Region (%), 2021

Figure 10-23: Global - Imfinzi Quarterly Sales Value US\$ Million), 2021

Figure 10-24: US - Imfinzi Quarterly Sales Value US\$ Million), 2021

Figure 10-25: Global - Imfinzi Quarterly Sales Value US\$ Million), 2020

Figure 10-26: US - Imfinzi Quarterly Sales Value US\$ Million), 2020

Figure 10-27: Global - Tecentriq Annual Sales Value (US\$/CHF Million), 2019 - 2021

Figure 10-28: US - Tecentriq Annual Sales Value (US\$/CHF Million), 2019 - 2021

Figure 10-29: Europe - Tecentriq Annual Sales Value (US\$/CHF Million), 2019 - 2021

Figure 10-30: Japan - Tecentriq Annual Sales Value (US\$/CHF Million), 2019 - 2021

Figure 10-31: ROW - Tecentriq Annual Sales Value (US\$/CHF Million), 2019 - 2021



Figure 10-32: Tecentriq - Annual Sales Value by Region (US\$/CHF Million), 2021

Figure 10-33: Tecentriq - Annual Sales Value by Region (%), 2021

Figure 10-34: Global - Tecentriq Quarterly Sales Value (US\$ Billion), 2021

Figure 10-35: US - Tecentriq Quarterly Sales Value (US\$ Billion), 2021

Figure 10-36: US - Tecentriq Quarterly Sales Value (US\$ Million), 2020

Figure 10-37: Global - Libtayo Annual Sales Value (US\$ Million), 2018 - 2021

Figure 10-38: US - Libtayo Annual Sales Value (US\$ Million), 2018 - 2021

Figure 10-39: Libtayo - Annual Sales Value by Region (US\$ Million), 2021

Figure 10-40: Libtayo - Annual Sales Value by Region (%), 2021

Figure 10-41: Global - Libtayo Quarterly Sales Value (US\$ Million), 2021

Figure 10-42: US - Libtayo Quarterly Sales Value (US\$ Million), 2021

Figure 10-43: Global - Libtayo Quarterly Sales Value (US\$ Million), 2020

Figure 10-44: US - Libtayo Quarterly Sales Value (US\$ Million), 2020

Figure 10-45: Global - Jemperli Annual Sales Value by Region (US\$/GBP Million), 2021

Figure 10-46: Global - Jemperli Annual Sales Value by Region (%), 2021

Figure 10-47: US - Jemperli Quarter Sales Value (US\$/GBP Million), Q3 & Q4'2021

Figure 10-48: Global - Bavencio Annual Sales Value (US\$ Million), 2020 & 2021

Figure 10-49: US - Bavencio Annual Sales Value (US\$ Million), 2020 & 2021

Figure 10-50: Europe - Bavencio Annual Sales Value (US\$ Million), 2020 & 2021

Figure 10-51: Bavencio - Annual Sales Value by Region (US\$ Million), 2021

Figure 10-52: Bavencio - Annual Sales Value by Region (%), 2021

Figure 10-53: Global - Tyvyt Annual Sales Value (US\$ Million), 2019 - 2021

Figure 10-54: Global - Tyvyt Quarterly Sales Value (US\$ Million), 2021

Figure 10-55: Global - Tyvyt Quarterly Sales Value (US\$ Million), 2020



### **List Of Tables**

#### **LIST OF TABLES**

There Are More Than 500 Tables Representing Comprehensive Information On Biomarkers By Immune Checkpoint Inhibitors Clinical Trials And Indication



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